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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,784	07/27/2001	Jerrel K. Antolik	P0815	8803
32986	7590	10/19/2005	EXAMINER	
IPSG, P.C. P.O. BOX 700640 SAN JOSE, CA 95170-0640			KACKAR, RAM N	
			ART UNIT	PAPER NUMBER
			1763	

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/916,784

Applicant(s)

ANTOLIK, JERREL K.

Examiner

Ram N. Kackar

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-19 and 21-36 is/are pending in the application.
- 4a) Of the above claim(s) 27-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-19 and 21-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date none.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/16/2005 has been entered.

### ***Claim Rejections - 35 USC § 103***

2 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3 Claims 15-19 and 21- 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA including Lenz et al (5534751) by incorporation in view of Yasushi Arai (JP11214487).

Applicants admitted prior art (AAPA) discloses a plasma etching apparatus with plurality of pressure confinement rings (Lenz et al -Fig 1), attached to the chamber through plural hanging bores with mating portion (32 and 36), rings of quartz dielectric (Abstract), stack of at least three rings to confine plasma (Fig 1) and stepped hangers to hold rings spaced apart (Specification Fig-1) capable for adjustment in vertical direction (Fig 1-105).

Art Unit: 1763

AAPA including Lenz et al do not disclose twist-lock type mechanism (the structure claimed in last two paragraph of claim 1 is the bore part of the twist –lock type of mechanism) to hold rings in place.

Twist and lock type of fastener are used commonly to attach disk or ring type objects quickly and to snap fit at a distance from a surface.

Yasushi Arai discloses bores in proximity to each other to make a twist and lock adapter (Fig 1- 5 and 11a). This type of twist and lock adapter will work with disclosed stepped hanger of AAPA to lock the confinement ring to the hanger as required by claim 15.

AAPA as modified by the teaching of Yasushi Arai would allow some one to lift the rings placed on the stepped hanger attached to the top ring with lock bore, pass the larger hole of the bore through the hanger adapter and twist for a small angle to let the plunger of the hanger adapter move to the smaller hole to lock it in place.

Therefore it would have been obvious for one of ordinary skill in the art at the time invention was made to use the twist and lock type of device of Yasushi Arai to hang confinement rings on the prior art stepped hangers so as to be able to attach and remove them quickly and easily.

Newly added limitation “stepped hanger structure being radially offset from said locking bore” moved from dependent claim 20 to independent claim 15 does not make it patentable, since rearrangement of parts does not make a claim allowable. Rearrangement of parts was held to have been obvious. *In re Japikse* 86 USPQ 70 (CCPA 1950).

Another reason why this could not be allowable, is the fact that in order to apply the teaching of Yasushi Arai the stepped hanger would have to be installed offset since, as can be

Art Unit: 1763

best seen in Fig 2 of specification, installing stepped hanger (235) in line with the locking bore (205) would not make it work.

### ***Response to Amendment***

Applicant's arguments filed 5/16/2005 have been fully considered but they are not persuasive.

Applicant argues that the angular offset feature of the stepped hanger structure with respect to the locking bore is a critical feature and not merely a rearrangement of parts. Applicant however does not explain the criticality.

As explained before, the offset is merely as a consequence of the application of the teaching of Yasushi Arai to AAPA and is a mere mechanical convenience. It is not critical since the stepped hanger could be any where on the ring 200 and would work fine. It is further noted that stepped hanger, already disclosed in the prior art, has a circular shaft at the top. The teaching of Yasushi Arai requires an elongated hole for the locking bore. Therefore the two could not be concentric and stepped hanger would obviously be offset from the locking bore.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ram N. Kackar whose telephone number is 571 272 1436. The examiner can normally be reached on M-F 8:00 A.M to 5:P.M.

Art Unit: 1763

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571 272 1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ram Kackar  
Examiner AU 1763